

Upper Tertiary Invertebrates from West side of Chesapeake Bay.—Dr. OTTO MEYER made some remarks on Upper Tertiary invertebrates. Dr. Benjamin Sharp had given him for examination a specimen of *Balanus concavus* Bronn, which had been collected by Dr. J. Alban Kite, on the west side of Chesapeake Bay. The *Balanus* has a diameter of two inches. Its tergum has a long spur as in the specimens of *Balanus concavus* from the English Crag; the parietes, however, are smooth, while the Crag specimens are ribbed. The scutum is less elaborately sculptured than a scutum of the same species from Yorktown Va. in his collection.

The inside of this *Balanus* was filled with sand containing shells etc. From this sand he had picked out the following species.

GASTROPODA.

<i>Crucibulum costatum</i> Morton,	<i>Adeorbis concava</i> H. C. Lea, sp.,
<i>Crepidula fornicata</i> Lam.,	<i>Cerithiopsis terebralis</i> Adams,
<i>Natica</i> sp.	= <i>C. clavulus</i> H. C. Lea, sp.
<i>Caecum trachea</i> Montagu,	<i>Eulina eborea</i> Conr.,
= <i>C. annulatum</i> Emmons,	<i>Urosalpinx cinereus</i> Say,
= <i>C. pulchellum</i> Stimpson,	<i>Pleurotoma marylandica</i> Conr.?
<i>Nassa trivittata</i> Say,	<i>Tornatella ovoides</i> Conr.
<i>Trochus lens</i> H. C. Lea, sp.,	

LAMELLIBRANCHIATA.

<i>Pecten eboreus</i> Conr.,	<i>Cardium</i> sp.,
<i>Lucina crenulata</i> Conr.,	<i>Mastra</i> sp.,
<i>Venus cortinaria</i> Rogers,	<i>Aligena laevis</i> H. C. Lea,
<i>Corbula cuneata</i> Say,	<i>Aligena Sharpi</i> n. sp.

BALANIDAE.

Balanus concavus Bronn.

OSTRACODA.

Cythere sp.

FORAMINIFERA.

(Determined by Mr. A. Woodward.)

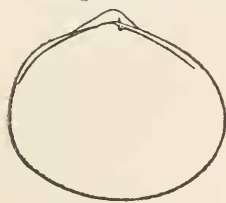
<i>Miliolina seminulum</i> Linn. sp.,	<i>Gaudryina pupoides</i> d'Orbigny.
<i>Polymorphina compressa</i> d'Orbigny,	

These determinations were made partly from fossil specimens in Dr. Meyer's collection, partly from recent species in the collection of the Academy and he is obliged to the Conservator of the Conchological Department of the Academy, Mr. H. A. Pilsbry, for giving him the opportunity to compare them with the recent forms. The names are not intended to be the final ones, for most species of shells have not only been described as recent forms but they have frequently had other names as fossils given them, and sometimes quite a number of names, and it will be a very great task to determine the final synonymy of the tertiary and recent species.

In two cases only did he try to give synonyms and definite names. The species of *Cæcum* of which he found nearly a dozen specimens, agrees with a specimen of *Cæcum annulatum* Emmons, in the collection of the Academy, which species has been described from the Tertiary of North Carolina. He was unable to distinguish the form specifically from specimens of *Cæcum pulchellum* Stimpson, from the Atlantic coast of America, and considers specimens of *Cæcum trachea* Mont., from the Atlantic coast of Europe as belonging to the same species.

Cerithiopsis clavulus H. C. Lea, sp., of which species he found a specimen with smooth embryonic whorls in material from Yorktown, Va., agrees with the recent *Cerithiopsis terebralis* Adams, from the Atlantic coast, Florida specimens of which show three and a half smooth embryonic whorls. If the nucleus of *Cerithiopsis terebralis* should agree with the nucleus of the European *Cerithiopsis trilineata* Phil., the two species would be identical and the name of Philippi would have the priority.

ALIGENA SHARPI, n. sp. Convex, subrotund, somewhat oblong, posterior margin slightly truncated. Beak small. Hinge with one small cardinal tooth. Ligament internal in a shallow sulcation, running from the beak past the dorsal margin obliquely posteriorly and interiorly. Anterior muscular impression much elongated; posterior muscular impression oval. Pallial line apparently entire. Surface with irregular prominent striæ of growth.



Only the figured specimen was found.

The genus *Aligena* is not mentioned in the Manuals of Conchology of Tryon and of Fischer. It was founded by H. C. Lea (Trans. Amer. Philos. Soc. (2) vol. IX, p. 238.) in 1843, and was defined by him in the following way:—"Shell equi-valve? subequilateral, closed posteriorly and anteriorly; hinge with one cardinal tooth and a long shallow sulcation under the beaks. The cardinal tooth is in general rather small. The sulcus appears to have received the ligament. It commences at the beak and runs obliquely past the dorsal margin into the cavity under the beak."

The two species of H. C. Lea have been placed by the authors after him, in the genus *Kellia*. In accordance with it Dr. Meyer has (at another place) enumerated *Kellia laevis* H. C. Lea, among the fossils which occur at Yorktown Va. But an examination of recent species of *Kellia*, especially of *Kellia suborbicularis* Mont., made him believe that these Miocene shells should not be placed in this genus.

The two species *Aligena laevis* H. C. Lea, and *Aligena striata* H. C. Lea, do not differ in shape from each other and are probably identical. *A. Sharpi*, however, differs from them greatly in shape, being more rounded and more inflated.